



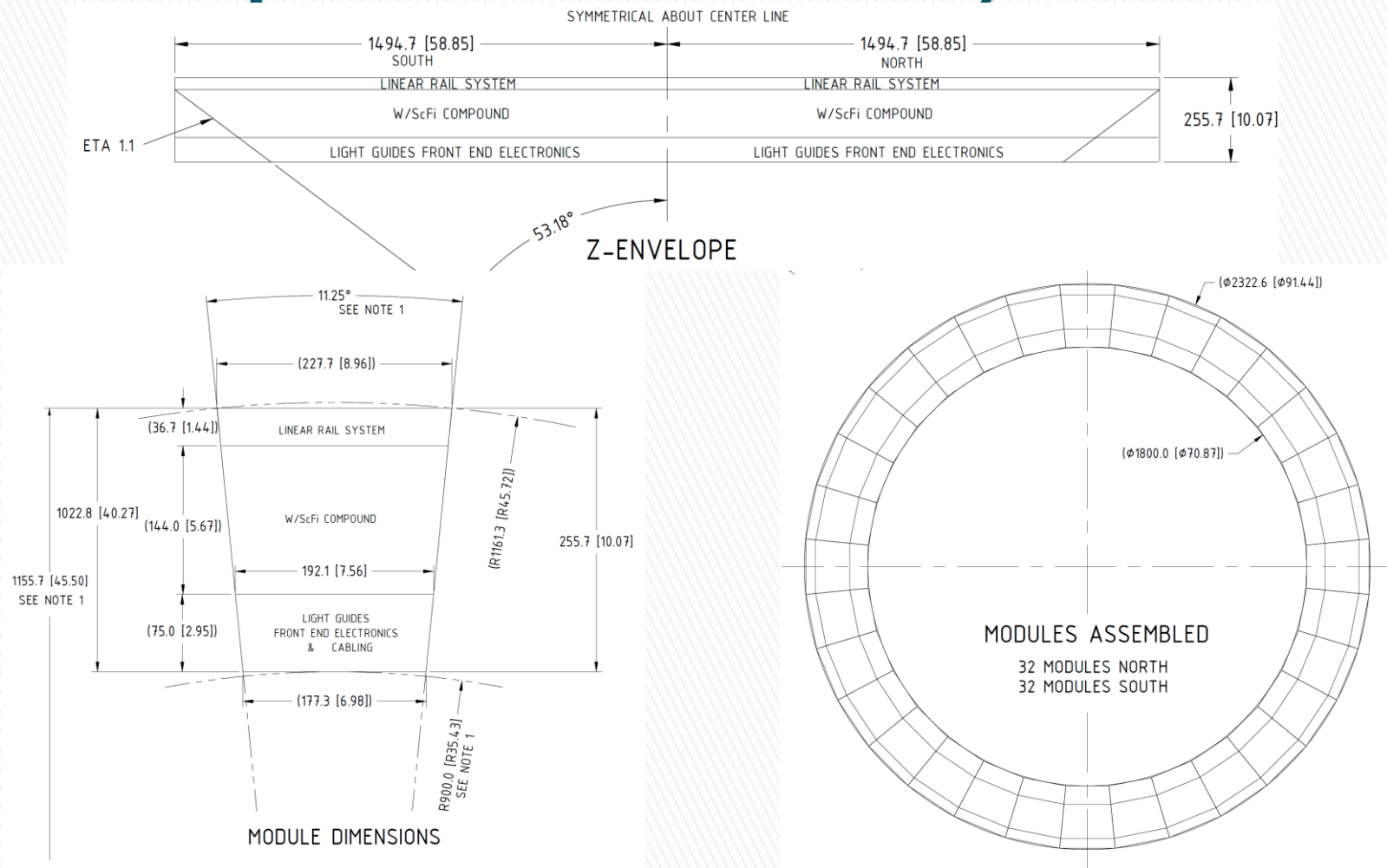
EMCal Layout in sPHENIX

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In discussion with

Craig Woody, Sean Stoll, Oleg Tsai, Richard Ruggiero, Chris Pontieri

EMCal profile from Richie, etc.



Module dimensions

Assembled

1125[°]
SEE NOTE 1

227.7 [8.96]

36.7 [1.44]

LINEAR RAIL SYSTEM

1022.8 [40.27]

144.0 [5.67]

W/S/CI COMPOUND

192.1 [7.56]

255.7 [10.07]

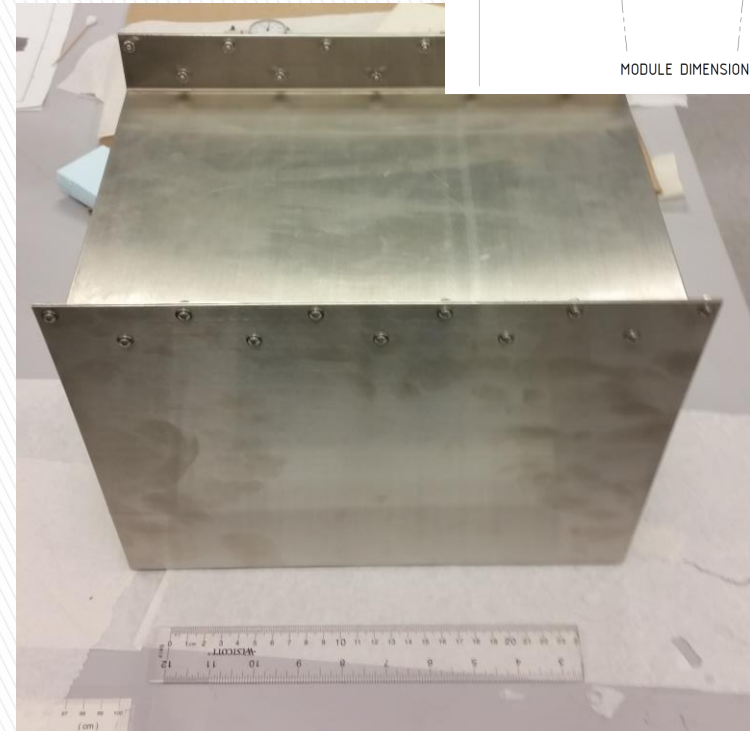
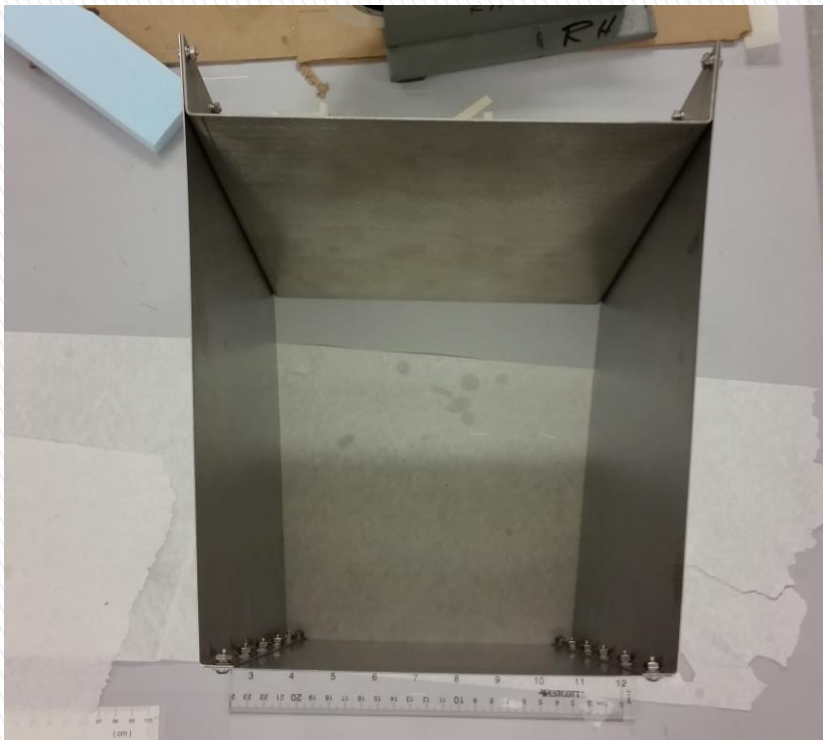
75.0 [2.95]

LIGHT GUIDES
FRONT END ELECTRONICS
& CABLING

177.3 [6.98]

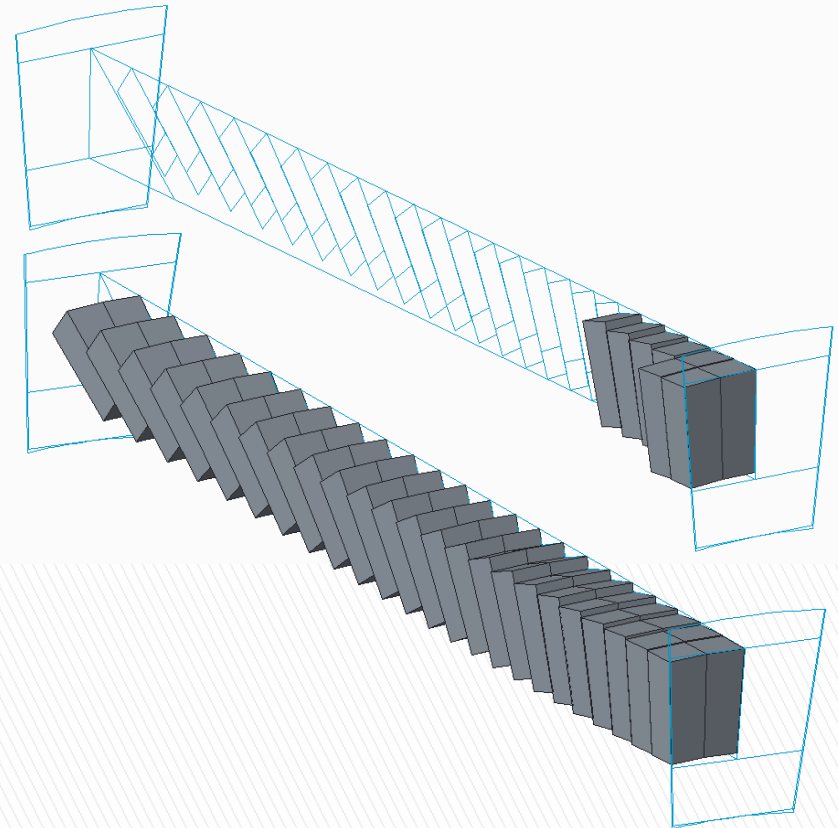
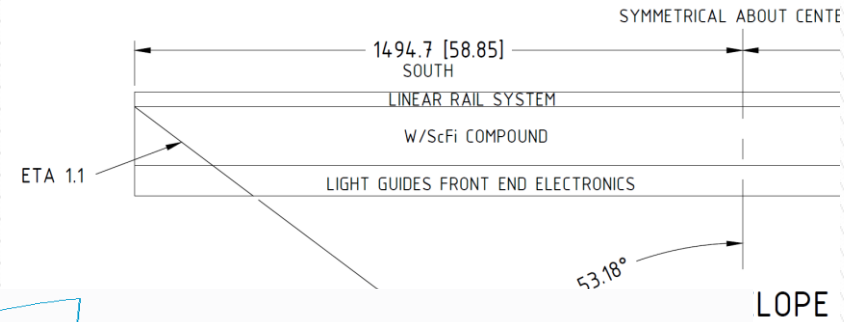
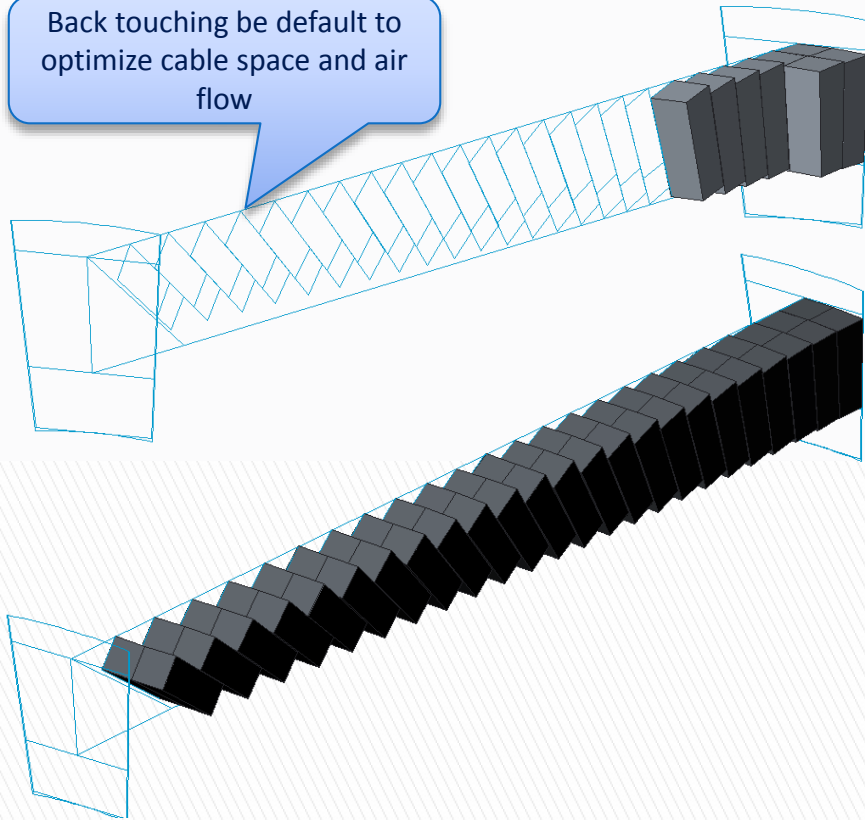
R9000 R935 431
SEE NOTE 1

MODULE DIMENSIONS

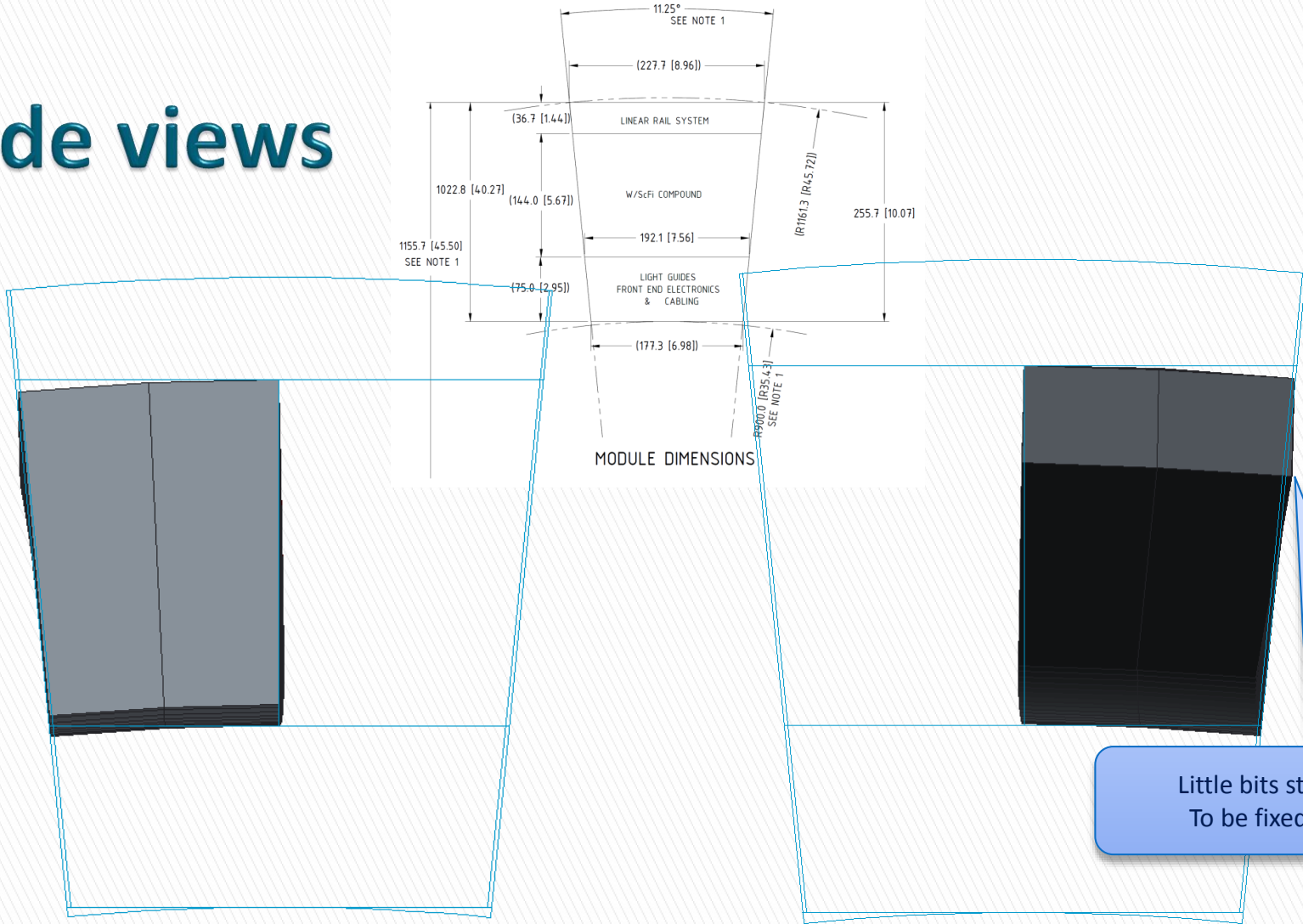


Half module layout

Back touching be default to optimize cable space and air flow



Side views



Little bits stick out
To be fixed soon

View from center

View from the end

Next steps

- ▶ Chris will finalize the first version of layout in few days
 - Producing numeric location and size for each unique EMCal block (2x2 channels), 2x24 blocks
 - Each block is defined by 3D coordinate of eight corners
- ▶ Jin will put those into Geant4 and allow variation of geometry to study for
 - Length of module VS back leakage
 - Front touch VS back touch
 - Performance VS 1D tapered modules